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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/146,734	09/03/1998	RALF BOHNKE	450117-4648	9762

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EXAMINER

SAM, PHIRIN

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 07/30/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/146,734

Applicant(s)

BOHNKE, RALF

Examiner

Phirin Sam

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-9,11-13,15,16 and 18 is/are rejected.
- 7) ☒ Claim(s) 2,6,10,14,19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

PS 7/24/03

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 3-5, 7-9, 11-13, 15, 16, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Baum et al. (U.S. Patent 5,867,478).

Baum et al. discloses the invention (**claims 1 and 5, & amended claims 3, 4, 7, and 8**) as claimed including transmission method for transmitting OFDM signals, comprising the steps of:

- (a) modulating the signals onto a plurality of subcarriers using an OFDM modulation method (see Fig. 1-2, element 102, col. 3, lines 38-45, 61-64).
- (b) transforming the modulated signals into the time domain (see Fig. 2, col. 3, lines 50-53, 58-61).

- (c) transmitting the signals (see Fig. 2, col. 3, lines 48-50, 59-60).
characterized in that
- (d) in the modulating step every M-th subcarrier is modulated with a signal, wherein M is an integer and $M \geq 2$ (see Fig. 1, element 102, col. 3, lines 37-45).

Regarding amended claim 9, 11-13, 15, and 16, Baum et al. discloses receiving method for receiving OFDM-signals comprising M identical or respectively mirrored wave forms within one OFDM-timeburst, wherein M is an integer and $M \geq 2$, comprising the steps of:

- (a) receiving the OFDM signals (see col. 4, lines 13, 15).
- (b) correlating the waveforms to obtain time synchronization using M-1 correlators (see col. 7, lines 28-33).
- (c) transforming the signals into the frequency domain (see col. 4, lines 13, 18-19).
- (d) demodulating the signals (see col. 4, lines 14, 19).

Regarding amended claim 18, Baum et al. discloses transmission system for transmitting OFDM-signals, comprising:

- (a) a transmission apparatus including modulating means for modulating the signals onto a plurality of subcarriers using a OFDM modulation method (see Fig. 1-2, element 102, col. 3, lines 38-45, 61-64), transformation means for transforming the modulated signals into the time domain (see Fig. 2, col. 3, lines 50-53, 58-61), and transmission means for transmitting the signals (see Fig. 2, col. 3, lines 48-50, 59-60,) characterized in that in the modulating step every M-th subcarrier is modulated with a signal, wherein M is an integer and $M \geq 2$ (see Fig. 1, element 102, col. 3, lines 37-45).

(b) a receiving apparatus for receiving the OFDM-signals having M identical or respectively mirrored waveforms within one OFDM-timeburst, including receiving means for receiving the OFDM signals (see col. 4, lines 13, 15), correlation means for correlating the waveforms to obtain time synchronization (see col. 7, lines 28-33), transformation means for transforming the signals into the frequency domain (see col. 4, lines 13, 18-19), and demodulation means for demodulating the signals (see col. 4, lines 14, 19).

Allowable Subject Matter

3. Claims 2, 6, 10, 14, 19, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 3-5, 7-9, 11-1, 15-16, and 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to the examiner, Phirin Sam whose telephone number is (703) 308 – 9294. The examiner can normally be reached on Monday – Friday for 8:30AM – 5:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on (703) 305 – 4703. The fax number for this group is (703) 872 – 9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305 - 4700.

A handwritten signature in black ink, appearing to read "Phirin Sam". The signature is fluid and cursive, with a large initial "P" and "S".

Phirin Sam
Patent Examiner
July 24, 2003